ACRIDIIDAE : *Acrida turrita*, L.

LEPIDOPTERA.—*Satyridae*: *Satyrus briseis*, L., *Melanargia larissa*, Hb., *Coenonympha pamphilus* var. *marginata*, Staud.

Nymphalidae: *Issoria* (*Argynnis*) *lathonia*, L., *Melitaea phoebe*, Knoch, *Melitaea didyma*, Ochs., *Pyrameis cardui*, L.

Lycaenidae: *Polyommatus* (*Lycaena*) *icarus*, L., *Chrysophanus thersamon*, Esp., *Rumicia* (*Chrysophanus*) *phlaeas*, L., *Tarucus theophrastus*, F., *Strymon ilicis*, Esp.

Papilionidae: *Papilio machaon*, L., *Papilio podalirius*, L.

Pieridae: *Pontia* (*Pieris*) *daplidice*, L., *Pieris brassicae*, L., *Pieris rapae*, L., *Aporia crataegi*, L., *Colias edusa*, F., *Colias hyale*, L.

Hesperiidae: *Adopaea lineola*, Ochs., *Adopaea flava* (*linea*), Fb., *Erynnis alceae*, Esp., *Gegenes nostrodamus*, F.

Noctuidae: *Catocala conversa*, Esq.

Sphingidae: *Agrius convolvuli*, L., *Sesia stellatarum*, L.

Geometridae: *Rhodostrophia calabra*, Pet., var. *tabidaria*, Z.

Zygaenidae: *Zygaena hilaris*, Ochs.

Aegeriidae: *Aegeria ichneumoniformis*, F.

I thought you might like the above for publication in the *Record*, as I felt that everyone, scattered over the globe as we all are now, should give a few stray notes, which might perchance give information as to the distribution of species, as we are often posted to places miles away from the "beaten track." The main trouble is that we have great difficulty with luggage, and it is hopeless to try to collect seriously owing to other duties and the question of nets, boxes, books, etc., etc. Who would have thought a few years ago that I would have written you an "Epistle *from* the Thessalonians" ! !

Zygaena filipendulae and Z. lonicerae hybrids.

By THOS. GREER.

I was much interested in the notes which have appeared in the *Entomologist's Record* on the above subject, by Mr. Bethune-Baker and the Hon. H. Onslow, and as an additional contribution send my observations of these species from this district (East Tyrone).

Of *Z. filipendulae* there is a large colony on the edge of a cut-out bog in the neighbourhood, and it also is present in other localities, but only in sparse numbers. In the damper portions of this bog *Z. lonicerae* is also to be found resting on thistles (but I have never observed the two species flying together). Here, for several seasons, I have taken a six spotted *Zygaena* flying with *filipendulae* in early July, these are to be distinguished from the latter by the spots on the undersides of the superior wings being distinct, as in *lonicerae*, and not blotched over the disk of the wing as is the case with *filipendulae*, and a broad border to the anterior wings. In some of these specimens the sixth spot is well defined, and in others it is reduced to a mere dot, the ground colour varying from a bright steel blue to a bronzy green ; in two examples the superiors are of a very pale blue, with the spots and inferiors pink, the fringes and antennæ, greyish-white.

I know nothing of the early race of *Z. filipendulae* here, both species appearing on the wing about the same date, *viz.*, from the end of June to the end of July. *Z. lonicerae* is locally abundant, being almost confined to low lying meadows, which are in part subject to winter floods (at the present time one of the best localities for this species is covered with at least a foot of water).* The food-plant here is the meadow vetchling (*Lathyrus pratensis*); the larvæ generally spinning their coccoon on the stems of reeds and tall grasses edging the small stream, in preference to rushes, etc., growing beside the food-plants; and often wandering a long way to do so. The imago is to be found in July, flying in the sun or resting and feeding upon the flowers of the Marsh Thistle (*Cnicus palustris*).

On July 4th, 1917, two *Z. lonicerae* ♀ having emerged from collected cocoons, I conveyed them to the *filipendulae* locality, and had the satisfaction of getting both paired within a few minutes; the ♂s being attracted in large numbers, and each ♀ as far as I could observe had no difficulty in pairing with the chosen ♂. After a short time I brought the paired moths home and the ♀s laid a number of fertile ova, but I failed to bring the larvæ through the winter, no doubt due to keeping them indoors, instead of putting them out in the open on a growing plant of *Lotus*.

These notes are very incomplete; I had intended to try and secure the reciprocal cross *Z. filipendulae* ♀ × *Z. lonicerae* ♂ this season, 1918, but the few cocoons of the former species that I was able to collect all produced ♂s.

SCIENTIFIC NOTES AND OBSERVATIONS.

Early and late Marriage-flights of Ants.—*Formica rufa*, the common wood-ant, is one of the earliest of our ants to appear and the last to retire into winter quarters. Sex pupæ and sometimes adult ♀ ♀ and ♂ ♂ may be found in the nests during February, the temperature under the incubating nest-heaps keeping a uniformly high level, but I have never observed a marriage-flight before May until this spring. At Graffham, Sussex, I first noticed the ants out on their nests on February 17th, when I was struck with their remarkably well-fed appearance after the winter, and they first began to frequent their roads on March 12th. Exactly a month later, on April 12th, the first marriage-flight took place. It was an exceptionally fine day, and innumerable ♀ ♀ and ♂ ♂ were flying and walking about on the roads. Copulation was not observed. Another flight occurred on April 24th, in the same place, and another on the 22nd, about a mile away. It would be interesting to know whether earlier flights than this have been recorded.

On the other hand some late flights were seen in this locality. One of *Lasius umbratus*, on October 23rd, near Petworth, was exceptionally late, and still later, on the 25th, I picked up a partially deälated ♀ of *Lasius fuliginosus*. This species usually flies in May, and this individual had probably remained in the nest all the summer. At the date of finding her the colonies of this species in the neighbourhood had already disappeared for the winter.

* Perhaps some of the contributors to the *Entomologist's Record* could offer an explanation as to how the species continues to exist under such conditions.